

REMARKS

Applicants submit this Amendment, together with a one-month Petition for Extension of Time, in reply to the Office Action mailed November 17, 2003.

In this Amendment, Applicants cancel claims 2, 5, 15, and 16, without prejudice or disclaimer, and amend claims 1, 3, 6, and 12.

Before entry of this Amendment, claims 1-9 and 12-16 were pending in this application. After entry of this Amendment, claims 1, 3, 4, 6-9, and 12-14 are pending in this application.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to claims 1, 3, 6, and 12. No new matter was introduced.

In the Office Action, the Examiner rejected claims 1, 3/1, and 12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,913,929 to Moslehi et al. (“Moslehi”) in view of U.S. Patent No. 6,403,925 to Johnsgard et al. (“Johnsgard”); rejected claims 2, 3/2, 5, 15, and 16 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,076,205 to Vowles et al. (“Vowles”) in view of U.S. Patent No. 5,512,320 to Turner et al. (“Turner”); rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Moslehi in view of Johnsgard as applied to claims 1, 3/1, and 12 above, and further in view of U.S. Patent No. 5,624,499 to Mizuno et al. (“Mizuno”); rejected claims 6/1 and 7/1 under 35 U.S.C. § 103(a) as being unpatentable over Moslehi in view of Johnsgard as applied to claims 1, 3/1, and 12 above, and further in view of U.S. Patent Nos. 4,952,273 to Popov (“Popov”) and 5,830,310 to Doi (“Doi”); rejected claims 6/2 and 7/2 under 35 U.S.C. § 103(a) as being unpatentable over Vowles in view of Turner as applied to claims 2, 3/2, and 5 above, and further in view of Popov and Doi; and rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Moslehi and

Johnsgard as applied to claims 1, 3/1, and 12 above, and further in view of U.S. Patent Nos. 5,041,719 to Harris et al. (“Harris”) and 4,952,299 to Chrisos et al. (“Chrisos”). Applicants respectfully traverse the Examiner’s rejections.

35 U.S.C. § 103(a) Rejections

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a) using multiple references, each of three requirements must be met. First, the references, when combined, must teach or suggest all the claim limitations. M.P.E.P. 2143.03. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Id. Third, there must be a reasonable expectation of success that the proposed combination will work for the intended purpose. Id. Moreover, the second and third requirements “must both be found in the prior art, not in applicant’s disclosure.” Id.

Amended Independent Claim 1

Applicants respectfully submit that amended claim 1 is patentable for at least two reasons. First, the prior art references, when combined, fail to teach or suggest all the claim limitations. Id. Second, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner that would result in the claimed invention. Id.

Applicants urge that Johnsgard, Moslehi, and the other art of record, taken alone or in any proper combination, fail to disclose all of the recited elements of claim 1, as amended, including “[a] processing apparatus comprising . . . a movable shielding plate provided in a gap between

the transparent window and the object configured to shield the object from heat radiation from the transparent window, the shielding plate being extractable from and insertable into the gap.”

The Examiner states:

“[Moslehi] fail to teach a shielding plate provided in such a way that the shielding plate can be inserted into or extracted from a gap between the object and the transparent window . . . Johnsgard et al. teach the use of a non-transmissive plate, which is insertable and extractable, for the purpose of covering a window when not in use (column 9, rows 61-67). It would have been obvious to one of ordinary skill in the art at the time the Applicant’s invention was made to have provided an insertable and extractable shield in [Moslehi] in order to cover the window when not in use as taught by Johnsgard et al. . . . Brors et al. failed to teach the shielding plate as capable of preventing heat stored in the transparent window from being transferred to an object in the processing chamber (i.e. the plate was thermally conducting rather than insulating), [Moslehi] remedies this deficiency. . . . in the rejection of claims 1 and 12 of the previous office action, Johnsgard et al. was relied upon for teaching insertion and extraction of a shield plate during periods of non-use of a transmissive window. . . . In fact, Johnsgard et al. do in fact teach providing shielding plate for preventing heat from passing through a transmissive window at column 9, lines 62-67.”

Office Action, paragraphs 5-7 and 53. Applicants respectfully disagree and submit that neither Johnsgard nor Moslehi teaches or suggests a movable shielding plate provided in a gap between the transparent window and the object configured to shield the object from heat radiation from the transparent window, as recited in amended claim 1. Emphasis added.

Although Johnsgard discloses, “When a window is not used, a nontransmissive plate may be used to cover the viewing port for improved insulation,” Johnsgard, col. 9, lines 65-67, Johnsgard does not teach a movable shielding plate as recited in amended claim 1.

As recited in amended claim 1, the movable shielding plate requires the plate to be provided in a gap between the transparent window and the object. In Johnsgard, the

nontransmissive plate is only provided when “a window is not used,” and thus cannot be provided in a gap between the transparent window and object. Id. Additionally, Applicants submit that the viewing port of Johnsgard cannot be construed as the “transparent window” recited in the claims. The transparent window of claim 1 is formed between the heater and the object to be processed. In Johnsgard, on the other hand, the viewing port cannot be placed between the heater and the object to be processed; to do so would position the person viewing through the port in the heat flux from the heater. Further, the transparent window of claim 1 stores heat from a former heating process; a viewing port, on the other hand, would not store residual heat from a former heating process as the transparent window of amended claim 1 would. Accordingly, the nontransmissive plate of Johnsgard cannot be construed as the movable shielding plate of amended claim 1.

Furthermore, one of ordinary skill in the art would not be motivated to combine the disclosures of Moslehi and Johnsgard, as the Examiner has suggested.

The Examiner states:

“It would have been obvious to one of ordinary skill in the art at the time the Applicant’s invention was made to have provided an insertable and extractable shield [of Johnsgard to Moslehi] in order to cover the window when not in use as taught by Johnsgard et al. . . [Moslehi] teach the use of a window, but are silent on a structure for use when the apparatus is to be used without the application of heat. Johnsgard et al. fairly teach the use of a structure for this situation that one of ordinary skill in the art would have recognized.”

Office Action, paragraphs 7 and 53.

Even assuming arguendo that the nontransmissive plate of Johnsgard could be construed as the movable shielding plate of claim 1, there is no suggestion or motivation to make the

proposed modification to Moslehi. Moslehi discloses quartz window 42 as water-cooled. See Moslehi, col. 4, lines 41-46. Because quartz window 42 of Moslehi is water-cooled, one of ordinary skill in the art would not attempt to combine the nontransmissive plate of Johnsgard with the reactor of Moslehi, as the Examiner has done. Because water removes any heat stored in window 42, there is no need to provide an insertable and extractable shield configured to shield the object from heat stored in transparent window 42.

Applicants know of no reason, and the Examiner has failed to provide any, why one of ordinary skill in the art would modify Moslehi by adding a movable shield between the transparent window and object to be processed. Applicants submit that the Examiner's assertion that one of ordinary skill in the art would combine the nontransmissive plate of Johnsgard with the reactor of Moslehi in order to "cover the window when not in use," fails to provide a proper suggestion or motivation to combine the references. If the Examiner suggests that one of ordinary skill in the art would "cover the window" to protect the window from damage by personnel, Applicants submit that the window would be covered from the exterior of the processing container, and not in a gap between the window and object to be processed.

Accordingly, the rejection of claim 1, as amended, based on Moslehi and Johnsgad should be withdrawn.

Dependent Claims

Applicants submit that dependent claims 3, 4, 6-9, and 12-14 are patentable over the cited references including Moslehi, Johnsgard, and any other art of record. This is true whether such art is considered alone or in any proper combination, in particular due to the dependency of claims 3, 4, 6-9, and 12-14 from independent claim 1. "Dependent claims are nonobvious under

Section 103 if the independent claims from which they depend are nonobvious.” In re Fine, 837 F.2d 1071, 1076 (Fed. Cir. 1988).

Claim Scope

In discussing the specification, claims, abstract, and drawings in this Amendment, it is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants believe that Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Summary

In summary, Applicants submit that none of the cited references, including Moslehi, Johnsgard, or any other art of record, either alone or in any proper combination, teaches or suggests Applicants’ claimed invention.

Applicants respectfully submit that claims 1, 3, 4, 6-9, and 12-14 are in condition for allowance.

The Examiner is invited to call the undersigned at (202) 408-4157 if the Examiner deems that a telephone conversation would further the prosecution of the application.

In view of the foregoing amendments and remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner’s reconsideration and reexamination of this application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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